CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Original) A fuser member comprising a substrate, a layer thereover comprising a polymer, and on the layer a coating of an organosiloxane polymer including mercapto- and amino-functionalities comprising from about 0.05 mole percent to about 1.00 mole percent mercapto groups and from about 0.0001 mole percent to about 0.06 mole percent amino groups, wherein the ratio of mercapto to amino mole percent values is at least 2.

2. (Original) A fuser member according to claim 1, wherein the polymer is a polytetrafluoroethylene, a fluorinated ethylene-propylene copolymer, polyfluoroalkoxypolytetrafluoroethylene, or mixtures thereof.

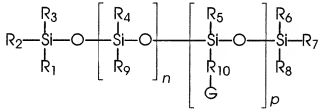
3. (Original) A fuser member according to claim 1, wherein the layer is a fluoropolymer or fluoroelastomer.

4. (Original) A fuser member according to claim 1, wherein the polymer is a copolymer of vinylidenefluoride and hexafluoropropylene; a terpolymer of vinylidenefluoride, hexafluoropropylene and tetrafluoroethylene; a tetrapolymer of vinylidenefluoride, hexafluoropropylene, tetrafluoroethylene and a cure site monomer; or a mixture thereof.

5. (Original) A fuser member according to claim 1, wherein the layer further comprises an additive selected from the group consisting of aluminum oxide, copper oxide, tin oxide, zinc oxide, lead oxide, iron oxide, platinum oxide, gold oxide, silver oxide, antimony oxide, bismuth oxide, zinc oxide, iridium oxide, ruthenium oxide, tungsten oxide, manganese oxide, cadmium oxide, mercury oxide, vanadium oxide, chromium oxide, magnesium oxide, nickel oxide, and mixtures thereof.

6. (Original) A fuser member according to claim 1, wherein the polymeric layer further comprises an additive selected from the group consisting of copper oxide, zinc oxide, and mixtures thereof.

7. (Original) A fuser member according to claim 1, wherein the coating is a blend comprising the mercapto-functional and amino-functional polyorganosiloxanes of the formula:



wherein G is -NHR_{11} or -SH, and wherein the -NHR_{11} or -SH groups can be on the same or separate chains, each of R_1, R_2, R_3, R_4, R_5, R_6, R_7, R_8, and R_9, independently of the others, are alkyl groups or arylalkyl groups, R_{10} is an alkyl group or an arylalkyl group, R_{11} is a hydrogen atom, an alkyl group, an alklyamino group or an arylalkyl group, and n and p are each integers representing the number of repeat monomer units.

8. (Original) A fuser member according to claim 1, wherein the mercapto-functional polyorganosiloxane of the coating has a weight average molecular weight of from about 4,000 to about 20,000.

9. (Original) A fuser member according to claim 1, wherein the amino-functional polyorganosiloxane of the coating has a weight average molecular weight of from about 4,000 to about 20,000.

10. (Original) A process which comprises (a) generating an electrostatic latent image on an imaging member; (b) developing the latent image by contacting the imaging member with a developer; (c) transferring the developed image to a copy substrate; and (d) affixing the developed image to the copy substrate by contacting the developed image with a fuser member according to claim 1.

11. (Original) A process according to claim 10, wherein the copy substrate is paper.

12. (Original) An image forming apparatus for forming images on a recording medium which comprises: a) a charge-retentive surface capable of receiving an electrostatic latent image thereon; b) a development assembly to apply toner to the charge-retentive surface, thereby developing the electrostatic latent image to form a developed image on the charge retentive surface; c) a transfer assembly to transfer the developed image from the charge retentive surface to a copy substrate; and d) a fixing assembly to fuse toner images to a surface of the copy substrate, wherein the fixing assembly includes a fuser member according to claim 1.

13. (Original) The image forming apparatus of claim 12, wherein the toner is a polyester based toner.

14. (Original) The image forming apparatus of claim 12, wherein the polymeric layer further comprises an additive selected from the group consisting of aluminum oxide, copper oxide, tin oxide, zinc oxide, lead oxide, iron oxide, platinum oxide, gold oxide, silver oxide, antimony oxide, bismuth oxide, zinc oxide, iridium oxide, ruthenium oxide, tungsten oxide, manganese oxide, cadmium oxide, mercury oxide, vanadium oxide, chromium oxide, magnesium oxide, nickel oxide, and mixtures thereof.

15. (Currently Amended) The image forming ~~application~~ apparatus of claim 12, wherein the toner is a styrene butadiene based toner.

16. (Original) A fuser member comprising a substrate, a layer thereover comprising a polymer, and, on the layer, a coating of an organosiloxane polymer comprising of from about 0.10 mole percent to about 0.20 mole percent of a mercapto group and from about 0.003 to about 0.03 mole percent of amino groups, wherein the ratio of mercapto to amino mole percent values is at least 5.

17. (Original) A fuser member according to claim 16, wherein the polymer is a polytetrafluoroethylene, a fluorinated ethylene-propylene copolymer, polyfluoroalkoxypolytetrafluoroethylene, or mixtures thereof.

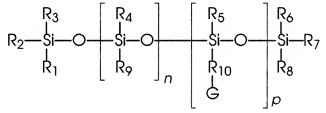
18. (Original) A fuser member according to claim 16, wherein the layer is a fluoropolymer.

19. (Original) A fuser member according to claim 16, wherein the polymer is a copolymer of vinylidenefluoride and hexafluoropropylene; a terpolymer of vinylidenefluoride, hexafluoropropylene and tetrafluoroethylene; a tetrapolymer of vinylidenefluoride, hexafluoropropylene, tetrafluoroethylene and a cure site monomer; or a mixture thereof.

20. (Original) A fuser member according to claim 16, wherein the layer further comprises an additive selected from the group consisting of aluminum oxide, copper oxide, tin oxide, zinc oxide, lead oxide, iron oxide, platinum oxide, gold oxide, silver oxide, antimony oxide, bismuth oxide, zinc oxide, iridium oxide, ruthenium oxide, tungsten oxide, manganese oxide, cadmium oxide, mercury oxide, vanadium oxide, chromium oxide, magnesium oxide, nickel oxide, and mixtures thereof.

21. (Original) A fuser member according to claim 16, wherein the polymeric layer further comprises an additive selected from the group consisting of copper oxide, zinc oxide, and mixtures thereof.

22. (Original) A fuser member according to claim 16, wherein the coating is a blend comprising the mercapto-functional and amino-functional polyorganosiloxanes of the formula:



wherein G is -NHR_{11} or -SH, and wherein the -NHR_{11} or -SH groups can be on the same or separate chains, each of R_1, R_2, R_3, R_4, R_5, R_6, R_7, R_8, and R_9, independently of the others, are alkyl groups or arylalkyl groups, R_{10} is an alkyl group or an arylalkyl group, R_{11} is a hydrogen atom, an alkyl group, an alklyamino group or an arylalkyl group, and n and p are each integers representing the number of repeat monomer units.

23. (Original) A fuser member according to claim 16, wherein the mercapto-functional polyorganosiloxane of the coating has a weight average molecular weight of from about 4,000 to about 20,000.

24. (Original) A fuser member according to claim 16, wherein the amino-functional polyorganosiloxane of the coating has a weight average molecular weight of from about 4,000 to about 20,000.

25. (Original) A process which comprises (a) generating an electrostatic latent image on an imaging member; (b) developing the latent image by contacting the imaging member with a developer; (c) transferring the developed image to a copy substrate; and (d) affixing the developed image to the copy substrate by contacting the developed image with a fuser member according to claim 16.

26. (Original) A process according to claim 25, wherein the copy substrate is paper.

27. (Original) An image forming apparatus for forming images on a recording medium which comprises: a) a charge-retentive surface capable of receiving an electrostatic latent image thereon; b) a development assembly to apply toner to the charge-retentive surface, thereby developing the electrostatic latent image to form a developed image on the charge retentive surface; c) a transfer assembly to transfer the developed image from the charge retentive surface to a copy substrate; and d) a fixing assembly to fuse toner images to a surface of the copy substrate, wherein the fixing assembly includes a fuser member according to claim 16.

28. (Original) The image forming apparatus of claim 27, wherein the toner is a polyester based toner.

29. (Original) The image forming apparatus of claim 27, wherein the polymeric layer further comprises an additive selected from the group consisting of aluminum oxide, copper oxide, tin oxide, zinc oxide, lead oxide, iron oxide, platinum oxide, gold oxide, silver oxide, antimony oxide, bismuth oxide, zinc oxide, iridium oxide, ruthenium oxide, tungsten oxide, manganese oxide, cadmium oxide, mercury oxide, vanadium oxide, chromium oxide, magnesium oxide, nickel oxide, and mixtures thereof.

30. (Currently Amended) The image forming ~~application~~ apparatus of claim 27, wherein the toner is a styrene butadiene based toner.

31. (Original) A fuser member comprising a substrate, a layer thereover comprising a polymer, and, on the layer, a coating of an organosiloxane polymer comprising from about 0.15 mole percent to about 0.20 mole percent mercapto groups and 0.003 mole percent to about 0.012 mole percent amino groups, wherein the ratio of mercapto to amino mole percent values is at least 10.

32. (Original) A fuser member according to claim 31, wherein the polymer is a polytetrafluoroethylene, a fluorinated ethylene-propylene copolymer, polyfluoroalkoxypolytetrafluoroethylene, or mixtures thereof.

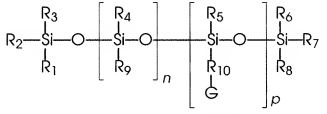
33. (Original) A fuser member according to claim 31, wherein the layer is a fluoropolymer.

34. (Original) A fuser member according to claim 31, wherein the polymer is a copolymer of vinylidenefluoride and hexafluoropropylene; a terpolymer of vinylidenefluoride, hexafluoropropylene and tetrafluoroethylene; a tetrapolymer of vinylidenefluoride, hexafluoropropylene, tetrafluoroethylene and a cure site monomer; or a mixture thereof.

35. (Original) A fuser member according to claim 31, wherein the layer further comprises an additive selected from the group consisting of aluminum oxide, copper oxide, tin oxide, zinc oxide, lead oxide, iron oxide, platinum oxide, gold oxide, silver oxide, antimony oxide, bismuth oxide, zinc oxide, iridium oxide, ruthenium oxide, tungsten oxide, manganese oxide, cadmium oxide, mercury oxide, vanadium oxide, chromium oxide, magnesium oxide, nickel oxide, and mixtures thereof.

36. (Original) A fuser member according to claim 31, wherein the polymeric layer further comprises an additive selected from the group consisting of copper oxide, zinc oxide, and mixtures thereof.

37. (Original) A fuser member according to claim 31, wherein the coating is a blend comprising the mercapto-functional and amino-functional polyorganosiloxanes of the formula:



wherein G is -NHR_{11} or -SH, and wherein the -NHR_{11} or -SH groups can be on the same or separate chains, each of R_1, R_2, R_3, R_4, R_5, R_6, R_7, R_8, and R_9, independently of the others, are alkyl groups or arylalkyl groups, R_{10} is an alkyl group or an arylalkyl group, R_{11} is a hydrogen atom, an alkyl group, an alklyamino group or an arylalkyl group, and n and p are each integers representing the number of repeat monomer units.

38. (Original) A fuser member according to claim 31, wherein the mercapto-functional polyorganosiloxane of the coating has a weight average molecular weight of from about 4,000 to about 20,000.

39. (Original) A fuser member according to claim 31, wherein the amino-functional polyorganosiloxane of the coating has a weight average molecular weight of from about 4,000 to about 20,000.

40. (Original) A process which comprises (a) generating an electrostatic latent image on an imaging member; (b) developing the latent image by contacting the imaging member with a developer; (c) transferring the developed image to a copy substrate; and (d) affixing the developed image to the copy substrate by contacting the developed image with a fuser member according to claim 31.

41. (Original) A process according to claim 40, wherein the copy substrate is paper.

42. (Original) An image forming apparatus for forming images on a recording medium which comprises: a) a charge-retentive surface capable of receiving an electrostatic latent image thereon; b) a development assembly to apply toner to the charge-retentive surface, thereby developing the electrostatic latent image to form a developed image on the charge retentive surface; c) a transfer assembly to transfer the developed image from the charge retentive surface to a copy substrate; and d) a fixing assembly to fuse toner images to a surface of the copy substrate, wherein the fixing assembly includes a fuser member according to claim 31.

43. (Original) The image forming apparatus of claim 42, wherein the toner is a polyester based toner.

44. (Original) The image forming apparatus of claim 42, wherein the polymeric layer further comprises an additive selected from the group consisting of aluminum oxide, copper oxide, tin oxide, zinc oxide, lead oxide, iron oxide, platinum oxide, gold oxide, silver oxide, antimony oxide, bismuth oxide, zinc oxide, iridium oxide, ruthenium oxide, tungsten oxide, manganese oxide, cadmium oxide, mercury oxide, vanadium oxide, chromium oxide, magnesium oxide, nickel oxide, and mixtures thereof.

45. (Currently Amended) The image forming ~~application~~ apparatus of claim 42, wherein the toner is a styrene butadiene based toner.